



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/671,869      | 09/29/2003  | Darbha Srinivas      | GRT/4062-91         | 5403             |

23117 7590 08/23/2007  
NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

|          |
|----------|
| EXAMINER |
|----------|

CHU, YONG LIANG

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1626

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

08/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/671,869

**Applicant(s)**

SRINIVAS ET AL.

**Examiner**

Yong Chu

**Art Unit**

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 7-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

Claims 4 and 5 have been canceled by the Amendment filed on 07/05/2007.

Claims 17-24 are new by the Amendment. Therefore, Claims 1-2, and 7-24 are pending in this application.

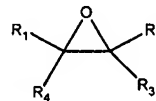
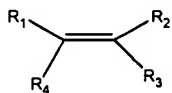
### *Response to Amendment*

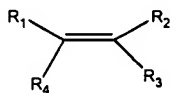
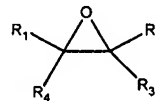
The Amendment by Applicants' representative Gary R. Tanigawa dated on 07/05/2007 has been entered.

### *Response to Arguments*

#### *Rejection under 35 U.S.C. §112, 1<sup>st</sup> paragraph, enablement*

Applicant's arguments over rejection of claims 1-2 and 7-16 under 35 U.S.C. §112, 1st paragraph for lacking enablement have been fully considered. The argument of lacking enablement for preparing variable size of cyclic carbonate from epoxide is found persuasive. Therefore, the rejection over the subject matter of epoxide has been withdrawn. However, the applicant's rebuttal based on the attorney's argument that the claimed invention provides a specific catalyst that is able to acceptable substrates such as olefins to produce cyclic carbonates is not factual based argument, and failing to respond directly to the Wand's analysis in the previous Office action, and accordingly are not persuasive. As stated in the previous Office action,



Olefin is defined as , and epoxide is defined as , and they are different in terms of chemical structure, and consequently the chemical propriety toward the catalyst used for making cyclic carbonate. Because the Specification only disclosed

Art Unit: 1626

support to enable making cyclic carbonate from ethylene epoxide, does not necessarily enable the olefin method absence the evidence. It is prima facie to one skilled in the art the olefin method claim is not enabled because one skilled in the chemical art know that structurally total different compounds react differently toward the catalyst. There is no assurance that the reaction for making cyclic carbonate using ethylene epoxide in the presence of the catalyst in claim 1 will work for olefin, unless there is evidence to support such claim. Therefore, the rejection of claims 1-2 and 7-16 under 35 U.S.C. §112, 1st paragraph for lacking enablement is maintained. For the same reason, the new claims 17-24 are rejected under 35 U.S.C. §112, 1st paragraph for lacking enablement for "olefin" used as starting material.

The examiner agrees with Applicant's comment on page 5 of the previous Office action that "epoxide needs to be canceled as a starting material..", and found there is an obvious error. It should be "olefin" not "epoxide". Therefore, a correction is made here for the spelling error. However, this will not affect the rejection.

Applicant's argument on claim 9 over use of solvents has been considered, and found persuasive. Accordingly, this instant rejection has been withdrawn.

Applicant's argument on claim 10 over use of solvents has been considered, and found persuasive. Accordingly, this instant rejection has been withdrawn.

**Rejection under 35 U.S.C. §112, 1<sup>st</sup> paragraph, written description**

Applicant's arguments over rejection of claim 1 under 35 U.S.C. §112, 1st paragraph for failing to meet written description on the generic terms of "cyclic

carbonates, olefin,. etc. " have been fully considered, and found persuasive.

Accordingly, this instant rejection has been withdrawn.

Applicant's arguments over rejection of claim 10 under 35 U.S.C. §112, 1st paragraph for failing to meet written description on the generic terms of "Lewis base co-catalyst " have been fully considered, and found persuasive. Accordingly, this instant rejection has been withdrawn.

**Rejection under 35 U.S.C. §112, 2<sup>nd</sup> paragraph**

The rejection of claims 3 and 6 under 35 U.S.C. §112, 2<sup>nd</sup> paragraph for indefiniteness is moot, since the claims have been canceled.

The rejection of claim 16 under 35 U.S.C. §112, 2<sup>nd</sup> paragraph for indefiniteness is obviated by the amendment.

**Claim rejection under 35 U.S.C. §103(a)**

Applicant has amended claim 1, which further defines the organometallic complex comprising a transitional metal ion of Al, Cu, Co, or Ni, and a coordinating ligand of phthalocyanine. The rejection of claims 1-2 and 6-16 under 35 U.S.C. §103(a) is obviated by the amendment.

**Claim objection**

The claim objection 1-2, and 7-16 for containing elected and non-elected subject matter has been withdrawn.

***Conclusion***

Claims 1-2 and 7-24 are rejected.

Art Unit: 1626

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

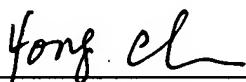
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Telephone Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph M<sup>rs</sup>Kane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

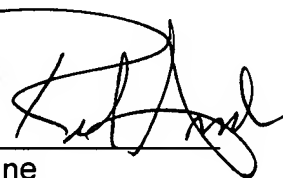
Art Unit: 1626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.



Yong Chu, Ph.D.  
Patent Examiner  
Art Unit 1626

REBECCA ANDERSON  
PRIMARY EXAMINER



Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626